

The quality of electric power ...

S/105/62/000/010/001/002
E194/E484

when the daily load curve displays marked seasonal variations is explained. It is concluded that further work on the assessment of power quality is required using statistical criteria of quality. The work should be commenced at once in view of the forthcoming issue of "Guidance on Voltage Control". The appropriate design organizations should publish temporary guidance on the procedure to be adopted in checking the voltage variations of systems. There are 3 figures and 1 table.

SUBMITTED: May 19, 1962

Card 2/2

BELIKOV, V.A.; BESSMERTNYY, I.S.; GLAZUNOV, A.A.; IOKHVIDOV, E.S.;
KOZLOV, V.A.; KUZNETSOV, K.S.; MIRER, G.V.; SOLDATKINA, L.A.;
FEDOSENKO, R.Ya.

"Fundamental problems concerning the design of municipal electric
power distribution networks" by B.L. Aizenberg and S.N. Nikogosov.
Reviewed by V.A. Belikov and others. Elektrichestvo no.7:93-94
Jl '62. (MIRA 15:7)

1. Moskovskiy inzhenerno-ekonomicheskiy institut imeni
S. Ordzhonikidze (for Belikov). 2. Giprkomunenergo (for
Bessmertnyy). 3. Moskovskiy energeticheskiy institut (for Glazunov,
Soldatkina). 4. Moskovskoye rayonnoye upravleniye energeticheskogo
khozyaystva (for Iokhvidov). 5. Leningradskaya kabel'naya set'
Leningradskogo upravleniya energokhozyaystvom Glavenergo
Ministerstva elektrostantsiy SSSR (for Kozlov). 6. Mesinzhproyekt
(for Kuznetsov). 7. Upravleniye po proyektirovaniyu zhilishchno-
grazhdanskogo i kommunal'nogo stroitel'stva g. Moskvy (for Mirer).
8. Akademiya kommunal'nogo khozyaystva im. K.D. Panfilova (for
Fedosenko).

(Electric power distribution)
(Aizenberg, B.L.) (Nikogosov, S.N.)

BESSMERTNYY, Isaak Semenovich; VORONTSOV, F.F., red.; TIKHONOVA, I.A.,
red. izd-va; SALAZKOV, N.P., tekhn. red.

[Schematics of municipal electric power distribution networks]
Skhemy gorodskikh elektricheskikh setei; posobie dlia proekti-
rovaniia gorodskikh elektricheskikh setei pri ikh avtomatiza-
tsii. Moskva, Izd-vo M-va kommun.khoz.RSFSR, 1963. 202 p.

(MIRA 16:10)

(Electric networks) (Electric power distribution)

BESSMERTNYY, I.S., kand.tekhn.nauk; SHIFRINSON, B.L., kand.tekhn.nauk;
TUSHINA, A.A., inzh.; Prinimali uchastiye: GOGICHAISHVILI, P.F.,
kand.tekhn.nauk; MAKARISHCHEV, A.S., inzh. [deceased]

[Installation and adjustment of an experimental section of a closed-loop low-voltage power distribution network] Ustroistvo i naladka opytnogo uchastka zamknutoi elektroseti niskogo napriazhenia. [Leningrad] 1962. 26 p. (Informatsionnoe pis'mo, no.3). (MIRA 16:8)

. Glavnyy inzh. Podol'skogo otdeleniya Moskovskogo oblastnogo upravleniya elektrostantsiy i elektrosetey (for Makarishchev).
(Electric power distribution)

BESSMERTNYY, I.S.

Design of municipal electrical networks taking into account
the growth of consumer loads. Trudy IIEI no.41:49-51 '62.
(MIRA 17:6)

1. Gosudarstvennyy respublikanskiy proyektnyy Institut
Ministerstva kommunal'nogo khozyaystva RSFSR.

BESSMERTNYY, I.S., kand. tekhn. nauk

Use of 6-10-20 kv. potentials in municipal power networks. Elektri-
chestvo no.7:16-22 J1 '65. (MIRA 18:7)

1. Gosudarstvennyy respublikanskiy proyektnyy institut Ministerstva
kommunal'nogo khozyaystva RSFSR (Giprokommunenergo).

BESSMERENYI, I.S., kand. tekhn. nauk

Use of closed-loop networks in municipal power distribution systems.

Nov.tekh.zhil.-kom.khoz.: Elek.i tepl.gor. no.5:31-44 '61.

(MIRA 18:9)

SEMENIDO, Ye.G., prof., doktor tekhn. nauk; ENGLIN, B.A.; PAPOK, K.K.,
prof. doktor tekhn. nauk; ZARUBIN, A.P.; RAGOZIN, N.A.;
SHIMONAYEV, P.S.; CHERTKOV, Ya.B.; LIVSHITS, S.M.;
BESSMERTNYI, K.I.; LOSIKOV, B.V.; SABLINA, Z.A.; ROZHKOV, I.V.;
GUREYEV, A.A.; FAT'YANOV, A.D.; ZRELOV, V.N.; ZARUDNYI, P.P.;
BRATKOV, A.A.; BARON, I.G.; LEVINA, Ye.S., ved. red.; TITSKAYA,
B.F., ved. red.; FEDOTOVA, I.G., tekhn. red.

[Motor, jet, and rocket fuels] Motornye, reaktivnye i raketnye
topliva. 4., perer. i dop. izd. Moskva, Gos. nauchno-tekhn.
izd-vo nef'tianoi i gorno-toplivnoi lit-ry, 1962. 741 p.
(MIRA 15:2)

(Rockets (Aeronautics))—Fuel)
(Jet propulsion)
(Motor fuels)

15.6500

11.9400

33446

S/065/62/000/002/003/004

E075/E485

AUTHORS:

Sinitzyn, V.V., Aleyeva, Ye.V., Bessmertnyy, K.I.,
Popova, Ye.P., Shmidt, A.A.

TITLE:

Influence of fractional composition of synthetic fatty
acids on thermal stability and practical
characteristics of sodium greases

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.2, 1962, 53-59

TEXT: To explain differences in performance (gelation at 80 to 120°C) between greases thickened with sodium soaps of natural fatty acids (C16 - C18) which are satisfactory and synthetic acids (fractions C10 - C16 and C12 - C20) which are not satisfactory, the latter were analysed by gas-chromatography. The synthetic acids were vacuum distilled into 5 fractions, the fractions having the following composition: top fraction: C11 - C15, 3.1%;
1) C13 - C17, 3%; 2) C15 - C19, 14%; 3) C16 - C20, 9.8%;
4) C17 - C21, 16.8%; 5) C18 - C22, 9.3%; residue, 40%.
Greases were prepared from each of the fractions and their mixtures saponified with NaOH in oil MK-8. It was found that the fractions 1 to 4 gave greases which had similar satisfactory thermal properties to the greases prepared from natural stearic acid. However,
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Influence of fractional ...

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fraction 5 gave greases that gelled at a lower temperature. This behaviour was similar to that exhibited by the greases prepared from the original synthetic acids. Also admixture of fraction 5 or the residue fraction, to the other fractions caused gelation to occur at a lower temperature than that characterizing the greases prepared from fractions 1 to 4. The authors conclude that some components present in fraction 5 and the residue cause the gelation to occur. Comparing the properties of the greases, it was evident that the heavier fractions have higher thickening action than the light fractions. With the increase in the mean molecular weight of the acids the consistency of the greases increases and oil separation decreases; the latter property is equivalent to an improved colloidal dispersion of the soap. Other improvements include viscosity-temperature characteristics and mechanical stability. It is concluded that the gelation of the greases is not connected with the presence in the fractions of the high molecular weight acids but with the unsaponifiable components of the residual fraction, some of which may be oxidation by-products. When the residual fraction is removed, the remaining

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Influence of fractional ...

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acids give generally better sodium greases than those prepared from carboxylic acids derived from animal and vegetable fats. The analysis of fractional composition of the synthetic fatty acids by gas-chromatography was carried out at NII SZhIMS by B.P.Kotel'nikov. There are 2 figures, 4 tables and 3 Soviet-bloc references.

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Card 3/3

ACCESSION NR: AP4039795

S/0286/64/000/010/0045/0045

AUTHOR: Levitin, M. K.; Shekhter, Yu. N.; Kreyn, S. E.;
Kalashnikov, V. P.; Bessmertnyy, K. I.; Goryacheva, V. I.;
Lyakhovich, R. S.; Rozvadovskaya, I. N.; Khoroshilova, L. D.;
Dol'berg, A. L.; Sheremet, M. I.; Romanovskaya, A. A.; Vilenkin, A. V.

TITLE: Method for obtaining a corrosion inhibitor for lubricating oils. Class 23, No. 162616

SOURCE: Byul. izobr. i tovar. znakov, no. 10, 1964, 45

TOPIC TAGS: lubricating oil, corrosion inhibitor, mineral oil, nitration, neutralization, calcium oxide, promoters, alkylphenol, sulfonic acid, synthetic fatty acid, acetic acid

ABSTRACT: This Author Certificate introduces a method of obtaining a corrosion inhibitor for lubricating oils by the nitration of mineral oil with the subsequent neutralization of the latter with metal hydroxide. To enhance the effectiveness of the corrosion inhibitor, the nitrated oil is neutralized with calcium hydroxide

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ACCESSION NR: AP4039795

in the presence of the following promoters: an alkylphenol, a synthetic fatty acid, a sulfonic acid, acetic acid.

ASSOCIATION: none

SUBMITTED: 23Aug63

DATE ACQ: 19Jun64

ENCL: 00

SUB CODE: FP

NO REF SOV: 000

OTHER: 000

Card 2/2

L 02193-67 EWT(m)/T DJ/JAJ
ACC NR: AP6032091 (A) SOURCE CODE: UR/0256/66/000/009/0069/0070

AUTHOR: Vilenkin, A. V. (Engineer; Lieutenant Colonel; Candidate of technical sciences); Bessmertnyy, K. I. (Engineer; Lieutenant Colonel); Korolev, V. P. (Engineer; Major) 36
35
B

ORG: none

TITLE: Protective storage of machinery by lubricant additives

SOURCE: Vestnik protivovozdushnoy oborony, no. 9, 1966, 69-70

TOPIC TAGS: lubricant additive, lubricant viscosity, lubricating oil
/AKOR-1 additive

ABSTRACT: The AKOR-1 additive is obtained by processing certain low viscosity oils with nitric acid, followed by neutralization with alkali to which stearin has been added. Adding 3—20% of AKOR-1 to any regular lubricating oil will keep machinery free from rust for two to three years. The following percentages are used, according to conditions: 3% for machinery stored in heated places, 5—6% if stored in unheated places, 10% if kept in the open air, and 15—20% if stored in subtropical or coastal areas. The maintenance costs per motorized vehicle are

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ACC NR: AP6032091

reduced by 32 to 46 rubles for five years if AKOR is used. The characteristics of regular oils to which AKOR-1 has been added are described in detail in a pamphlet entitled "Inhibited oils and fuels" (Inhibirovannyye masla i topliva) published by the Central Scientific Research Institute for Technical Information and Economics (Tsentral'nyy nauchno-issledovatel'skiy institut tekhnicheskoy informatsii i ekonomii) of Neftegaz (Coal and gas) in 1964.

SUB CODE: 11, 13/ SUBM DATE: none/

Cord

2/2 *eqh*

BUYANOV, Yuriy Dmitriyevich, kand. tekhn. nauk; AVERCHENKOV,
Anatoliy Pavlovich, gornyy inzh.; BESSMERTNYY, Konstantin
Sergeyevich, gornyy inzh.; AKSENOV, V.P., kand. tekhn.
nauk, retsenzent; BELYAKOV, Yu.I., kand. tekhn. nauk,
retsenzent; GEYMAN, L.M., red.izd-va; LAVRENT'YEVA, L.G.,
tekhn. red.

[Sand, gravel, crushed stone and clay quarries] Peschano-
graviinye, shchebenochnye i glinianye kar'ery. Moskva, Izd-
vo "Nedra," 1964. 358 p. (MIRA 17:3)

CHIKIN, A; YERMOLAYEV, I.; BESSMERTNYI, L.-----

News from schools. Prof.-tekh.obr. 19 no.1:32,3 of cover
Ja '62. (MIRA 15:1)

1. Nachal'nik Poltavskogo oblastnogo upravleniya proftekhobrazo-
vaniya.

(Vocational education)

BESSMERTNYY, Lipa Leybovich; STEPANOV, A.P., redaktor; MELENT'YEV, A.M.,
tekhnicheskiiy redaktor

[Tables for computing vacation pay and compensation for unused
vacation time.] Tablitsy dlia nachisleniia oplaty za otpusk i
kompensatsii za neispol'zovannyi otpusk. Dop.isd. Moskva, Gos.
statisticheskoe izd-vo, 1955. 23 p. (MLRA 9:3)
(Wages)

VAN FO FY, G.A. (Kiyev); BESSMERTNYI, M.I. (Kiyev)

Vibrations of oval pipes in a compressible fluid flow. Prikl.
mekh. 1 no.11:106-112 '65. (MIRA 19:1)

1. Institut mekhaniki AN UkrSSR. Submitted Jan. 20, 1965.

BESSMERTNYY, Petr Klimovich; KORNILOVA, M.I., redaktor; RAKOV, S.I.,
tekhnicheskiiy redaktor

[Innovations in an old shop] Novoe v starom tsekhe. [Moskva]
Izd-vo VTsSPS Profizdat, 1955. 83 p. (MIRA 9:1)

1. Starshiy master liteynogo tsekha Leningradskogo metalliche-
skogo zavoda imeni Stalina (for Bessmertnyy)
(Metallurgy)

BESSMERTNYY, P.K.

18
The blowing of cast iron with oxygen in the spout of a
cupola. P. K. Bessmertnyy. *Plavka Chuguna i Vagranke*
(Kiev: Gosudarst. Nauch.-Tekh. Izdatel. Mashinostroitel
Lit.). Sbornik 1955, 111-13; Referat. Zhur., Mei. 1955,
No. 3137. — Blowing with O under a pressure of 2.2-3 atm.
increased the temp. of the cast iron by 29-30°; under 6 atm.
by 80-100°. In the latter case up to 0.2% Si and up to 0.2%
Mn were burned out. Alexis N. Postoff

BESSMERTNYI, V.Ye.

Studying the methods of tilling takyr soils brought under cultivation. Izv.AN Turk.SSR.Ser.biol.nauk no.5:44-51 '62.
(MIKA 15:11)

1. Institut pustyn' AN Turkmenskoy SSR.
(TEDZHEN VALLEY--TAKYR)
(TEDZHEN VALLEY--TILLAGE)

BESEMERTNYY, V.Ye.; BURDYGINA, V.S.; ZAKURDAYINA, T.J.

Changes of some fertility elements in the takyr under the
effect of land improvement measures. Izv. AN Turk. SSR. Ser.
biol. nauk no.1:29-33 '64. (MIRA 17:9)

1. Turkmenskiy nauchno-issledovatel'skiy institut zemledeliya.

BESSMERTNYY, V.Ye.

Characteristics of the basic hydrophysical properties of virgin
and improved takyrs in the Tedzhen oasis. Izv. AN Turk. SSR. Ser.
biol. nauk no.5:23-29 '63.

(MIRA 17:10)

1. Turkmenskiy nauchno-issledovatel'skiy institut zemledeliya.

BESSMERTNYY, V.Ye.; BURDYGINA, V.S.

Ash elements and the productivity of field crops. Izv. AN Turk. SSR.
Ser. biol. nauk no.2:39-44 '65. (MIRA 18:5)

1. Turkmenskiy nauchno-issledovatel'skiy institut zemledeliya.

BESSMERTNYI, Ya. I., inzh. (Cherkassy)

Urgent problems in the operation of consolidated transportation
facilities. Zhel. dor. transp. 45 no.1:80-81 Ja '63.
(MIRA 16:4)

(Railroads, Industrial)
(Railroads—Joint use of facilities)

BESSMERTNYY, Yevgeniy Dmitriyevich, kapitan dal'nego plavaniya; MATYUSHIN,
M., red.; PORREBICH, M., tekhn.red.

[Manual for low-tonnage ship handlers] Posobie dlia sudovoditelei
malomernykh sudov. Vladivostok, Primorskoe knizhnoe izd-vo, 1959.
428 p. (MIRA 12:12)

(Ship handling)

BESSMERTNYY, Ye.D., kapitan dal'nego plavaniya; SPIRIDONOVA, A., red.;
GUMBINA, S., tekhn. red.

[From experience in the handling of workboats] Iz opyta promyslovogo sudovozhdeniia. Vladivostok, Primorskoe knizhnoe izd-vo, 1959. 25 p. (MIRA 16:7)
(Workboats--Handling)

BESSMERTNYY, Yevgeniy Dmitriyevich, nagrazhden ordenom Lenina,
trekya ordenami Trudovogo Krasnogo Znameni i ordenom
"Znak Pocheta"; LENTINA, M., red.; SHAYKOVA, N., tekhn.
red.

[The years of my life; notes of an old seaman] Gody zhizni;
zapiski starogo moriaka. Vladivostok, Primorskoe knizhnoe
izd-vo, 1963. 229 p. (MIRA 16:12)

1. Deystvitel'nyy chlen Geograficheskogo obshchestva SSSR,
chlen uchenogo soveta Primorskogo filiala Geograficheskogo
obshchestva SSSR (for Bessmertnyy).
(Seafaring life) (Voyages and travels)

BESSMERTNYY, Ye.F.

Recording strain-gauge block. Izm. tekhn. no.8:25-27 Ag '63.
(MIRA 16:10)

BESSMERTNYY, Ye.F., et al.

Some features of the motion of the rotor of a motor with rolling
contact at increased frequencies. Elektrotehnika 36 no.8:47-49 Ag
1965. (MIRA 18:9)

L 52217-65 ENT(d)/ENP(1) Po-h/Pq-h/Pg-h/Pk-h/Pl-h IJP(c) BC

ACCESSION NR: AP5009792

UR/0292/65/000/004/0032/0034
621.313.13.133.3

AUTHOR: Naniy, V. P. (Candidate of technical sciences); Bessmertnyy, Ye. F.
(Engineer) 33.5

TITLE: Higher-frequency motors with rolling rotor

SOURCE: Elektrotehnika, no. 4, 1965, 32-34

TOPIC TAGS: servomotor, rolling rotor motor

ABSTRACT: An original design of a 400-1000-cps rolling-rotor servomotor is described in which the stator flux is split in each phase and the slot skewing exceeds one-half of the tooth pitch; an odd number of teeth is used. To avoid rotor-to-stator sticking (jamming), the rotor is designed as a thin-wall solid cylinder; a helical slot is cut in the rotor to reduce the eddy-current loss; this slot also helps in throwing out the metal dust, which is formed due to vibration, thus further ensuring against the rotor sticking. Operating characteristics are presented of a model motor at 83 rpm, 400 cps, 112 v 3-phase, 9 kg-cm shaft torque. Orig. art. has: 5 figures, 1 formula, and 1 table.

Cord 1/2

L 52217-65

ACCESSION NR: AP5009792

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: EE, IE

NO REF SOV: 003

OTHER: 001

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Cord 2/2

BESSNYOI, I.

TECHNOLOGY

PERIODICAL: MELYEPITESTUDOMANYI SZEMLE. Vol. 8, no. 8/9, Aug./Sept. 1958

Bessnyoi, I. The new section of State Highway No. 7, between Balatonkeresztur and Nagykanizsa, p. 351.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 2,
February 1959, Unclass.

BESSOLITSYN, Ye P

3(5), 18(4)

PHASE I BOOK EXPLOITATION

SOV/1494

Akademiya nauk SSSR. Vostochno-Sibirskiy filial.

Syr'yevyye resursy legkikh metallov Vostochnoy Sibiri, t. 1, ch. 1 i 2. (East Siberian Light Metal Resources, Vol 1, Pt 1 and 2) Moscow, Izd-vo AN SSSR, 1958. 152 p. (Series: Its: Trudy, vyp. 12) 1,500 copies printed.

Editorial Board: Ye.P. Bessolitsyn, Doctor of Geological and Mineralogical Sciences; A.F. Li, Candidate of Technical Sciences; and Ye.I. Khazanov (Resp. Ed.); Ed. of Publishing House: V.K. Shlepov; Tech. Ed.: A.A. Kiseleva

PURPOSE: This book is intended for geologists, as well as economists and planners of aluminum processing enterprises.

COVERAGE: Sources of cheap electrical energy on the Angara and Yenisey Rivers provide the necessary power base for establishing a new industrial center in Eastern Siberia. Prospects are best for the creation of an aluminum industry provided adequate supplies of commercial ores (bauxite, nepheline, etc.) can be secured. These articles describe the results of studies made on aluminum ore deposits of this region, their geological nature and physicochemical properties by the SOPS (Council for the Study of Productive Resources), VAMI (All-Union Aluminum and Magnesium

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SOV/1494

East Siberian Light Metal Resources (Cont.)

Institute), the Irkutskiy institut redkikh metallov (Irkutsk Institute of Light Metals), and the Laboratoriya elektrometallurgii Vostochno-Sibirskogo filiala AN SSSR. Diagrams, tables, plates and bibliographic references accompany the articles.

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Boksonskiye Deposits of Bauxite-Like Rocks and Their Utilization
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Siberia

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Bessolitsin, Ye. P. Results of Geological Exploration; potentialities of
the Boksonskoye Deposit

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Li, A.F., and Ye.M. Bradinskaya. Mineralogical Characteristics of Boksonskoye
Ore Deposits

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East Siberian Light Metal Resources (Cont.)

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and Technological Testing of Bauxite-like Rocks of the Boksonskoye Deposit 51
- Ustinova, O.A. Conditions for the Industrial Development of Bauxite-like
Ores from the Boksonskoye Deposit 65

PART II

BAUXITES OF THE KRASNOYARSKIY KRAY AND THEIR UTILIZATION

- Bogolepov, K.V., and Ye.I. Pel'tek: Bauxite Deposits of the Krasnoyarskiy
Kray and Prospects of Further Discoveries 73
 - Khazanov, Ye.I. and A.F. Khlyupina. Study of the Physicochemical Properties
of the Tatarskoye Bauxite Deposit of the Krasnoyarskiy Kray 89
 - Bradinskaya, Ye.M. Mineralogy of the Tatarskoye Bauxite Deposit 99
- Card 3/4

East Siberian Light Metal Resources (Cont.)

SOV/1494

Khazanov, Ye.I., and A.F. Khlyupina. Beneficiation of Tatarskoye Deposit Bauxites

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Chipanin, I.V., and V.V. Lukina. Beneficiation of Tatarskoye Deposit Bauxites for the Purpose of Extracting Titanium-containing Minerals

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Beneslavskiy, S.I., and A.S. German-Galkina. Production of Alumina from Bauxites of the Tatarskoye Deposit

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Khazanov, Ye.I., A.S. Bessonova, and V.S. Mal'tsev. Reduction Smelting of Tatarskoye Deposit Bauxites

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Khazanov, Ye.I. Comparative Technicoeconomic Evaluation of the Electro-Thermal Method of Bauxite Treatment of the Tatarskoye Deposit

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AVAILABLE: Library of Congress

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Card 4/4

ESSOLITSYN, Ye.P.

New data on the Bokson deposit. Trudy Vost.-Sib. fil. AN SSSR
no.13:203-206 '58. (MIRA 12:12)

1. Irkutskoye geologicheskoye upravleniye.
(Bokson region (Buryat-Mongolia)---Bauxite))

BESSOLITSYN, YE. P.

[illegible]

BESSOLITSYN, Ye.P.

Results of geological prospecting and Bokson deposit prospects. Trudy.
Vost.-Sib.fil AN SSSR no.12:13-23 '58. (MIRA 11:11)

1. Irkutskoye geologicheskoye upravleniye.
(Bokson Valley--Bauxite) (Prospecting)

NALETOV, Petr Ivanovich; BESSOLITSYN, Ye.P., geol. red.; ABKEVICH, P.L.,
red.izd-va; IVANOVA, A.G., tekhn. red.

[Stratigraphy of the central part of the Buryat A.S.S.R.] Strati-
grafiia tsentral'noi chasti Buriatskoi ASSR. Moskva, Gos. nauchno-
tekhn. izd-vo lit-ry po geologii i okhrane neдр, 1961. 279 p.
(MIRA 14:11)

(Buryat-Mongolia—Geology, Stratigraphic)

NALETOV, P.I.; BESSOLITSYN, Ye.P., red.; SHVIRYAYEV, Yu.T., red. izd-
va; IYERUSALIMSKAYA, Ye.S., tekhn. red.

[Intrusive rocks in the central part of the Buryat A.S.S.R.] Intruzivnye gornye porody tsentral'noi chasti Buriatskoi ASSR. Moskva, Gosgeoltekhizdat, 1962. 149 p. (MIRA 16:1)
(Buryat-Mongolia--Rocks, Igneous)

BESSOLITSYN, Ye.P.

Ancient weathering surfaces in Irkutsk Province. Kora vyvetr.
no.5:315-325 '63. (MIRA 16:7)

1. Irkutskoye geologicheskoye upravleniye.
(Irkutsk Province—Weathering)

BESSOLITSYN, Ye.P.; FAYNSHTEYN, G.Kh.

Some data on the weathering surfaces of the south of the
Siberian Platform in the limits of Irkutsk Province. Kora
vyvetr. no.6:226-230 '63. (MIRA 17:9)

1. Irkutskoye geologicheskoye upravleniye.

BELYAYEV, A.P., red.; BESSOLITSYN, Yo.P., red.; BLINNINOV, I.I., red.; DZINKAS, Yu.K., red.; ZHARKOV, M.A., red.; KOROVIN, A.V., red.; KUR'YANOV, F.K., red.; MANDEL'BAUM, M.M., red.; NALETOV, P.I., red.; RYABENKO, V.Ye., red.; SAVINSKIY, K.A., red.; SERD, A.I., red.; SEMENYUK, V.D., red.; TUMOL'SKIY, L.M., red.; TIKHONOV, V.L., red.; TROPINUK, P.I., red.; TUMILOVSKAYA, M.V., red.; FOMIN, N.I., red. BEKMAN, Yu.K., ved. red.

[Recent data on the geology, petroleum potentials, and mineral resources of Irkutsk Province] Novye dannye po geologii, neftenosti i poleznym iskopaemym Irkutskoi oblasti. Moskva, Nedra, 1964. 278 p. (MIRA 17:8)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye geologii i okhrany neдр. Irkutskoye geologicheskoye upravleniye.

FEDOROV, K.F., gornyy inzh.; BESSOLITSYN, Yu.A., gornyy inzh.

New system of mining thick steeply dipping seams. Ugol' 37
no.2:9-12 F '62. (MIRA 15:2)
(Chelyabinsk Basin—Coal mines and mining)

BESSONENKO, A.V., inzh.

Electrical field of the stray current of an electrified railroad in
a two-layer media. Trudy OMIIT 42:11-22 '63.

Method for calculating the electrical field of stray current in a
two-layer media. Ibid.:77-90 (MIRA 18:10)

BESSONOV, Aleksandr Andreyevich, kand. tekhn. nauk, dotsent

Integrating and differentiating devices using transistors. Izv. vys.
ucheb. zav.; elektromekh. 8 no. 8: 854-862 '65.

(MIRA 18:10)

1. Leningradskiy mekhanicheskii institut.

BESSONENKO, V.V.; TSINKER, M.N. (Novo-Kuznetsk)

Initial experience in organizing the work of a therapy center for terminal states. Sov. zdrav. 21 no.5:67-68 '62. (MIRA 15:5)

1. Iz tsentra terapii terminal'nykh sostoyaniy pri kafedre travmatologii i ortopedii (zav. - prof. L.G.Shkol'nikov) Novo-Kuznetskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey (dir. - dotsent G.L.Starkov) i Gorodskoy stantsii skoroy meditsinskoy pomoshchi (glavnyy vrach M.N.TSinker).
(DEATH, APPARENT) (NOVOKUZNETSK--RESUSCITATION)

BESSONNAYA, Yu.V.

Determination of urotropin dust in air. Gig. i san. 24 no.10:79-81
'59. (MIRA 13:1)

(AIR POLLUTION)
(METHENAMINE chem.)

DENEV, S.I.; BESSONNIKOVA, N.V.

Increasing the output of a crushing machine unit by raising the
temperature of the pulp. Obog. rud 6 no.2:50-51 '61. (MIRA 14:8)

(Crushing machines)

BESSONOV, A.A., kand.tekhn.nauk; BUKREYEV, Ye.M., kand.tekhn.nauk,
nauchnyy red. BOTOVA, Yu.P., red.

[Sand sampler for rapid filters of water-supply systems] Proboot-
bornik dlia peska na skorykh fil'trakh vodoprovodov, 1959. 8 p.
(Akademiia kommunal'nogo khoziaistva. Informatsionnoe pis'mo,
no.4). (MIRA 14:1)
(Water--Purification) (Filters and filtration)

PERSSONOV, A. A.

Title: Electrical Steel circuits

Author: A. A. Perssonov

Issuing Agency: Published by the State Printing House of Energetics

Date: 1948

From List ATIC 17413-3

BESSONOV, A.A.

Electronic differentiating units operating alternating current. Nauch.
dokl.vys.shkoly; elektromekh. i avtom. no.1:148-155 '59.

(MIRA 12:11)

1. Rekomendovana Leningradskim mekhanicheskim institutom.
(Electric measurements) (Electronic calculating machines)

BESSONOV, A.A.; STEPANOV, P.P.; GLOBIN, N.M.

Electronic devices for the automatic detection and counting of
defects in yarn. Biul.tekh.-ekon.inform. no.5:44-45 '60.

(Yarn-Testing)

(Electronic instruments)

(MIRA 14:3)

16.6800
AUTHOR:

TITLE:

PERIODICAL:

TEXT:

82916
S/144/60/000/006/001/004
EO41/E121
Bessonov, A.A., Candidate of Technical Sciences, Docent
Alternating Current Integrating Circuits 25
Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika,
1960, No 6, pp 3-12
If a given function is in the form of a time function
described by a sinusoid, then the output function from a circuit
integral of the input if all the roots of the equation will give the
equations are imaginary. When the degree of the characteristic
than second only two roots need be imaginary; variations in the
other roots affect only the transient behaviour. If the
differential equation is Eq (1) and if $N_1(p) = 1$, the exciting
function is Eq (4) and the solution is Eq (5). The solutions for
 $N(p) = p$, p^2 and $p^2 + a_1p + \omega^2$ are Eqs (8), (11) and (14)
respectively. In all these cases the solution to Eq (1) contains
the integral of the input variable with either a sine or cosine
coefficient. The second term in Eq (13) or the corresponding third
term (14) represents the dominant error in integration.

82916
S/144/60/000/006/001/004
E041/E121

Alternating Current Integrating Circuits

This term is expanded in Eq (15) whence it follows that the proportional error is 2ω times smaller than the useful signal and the first difference is 4ω times smaller and so on. When $N(p) = p$ for example the error is negligibly small. An ideal integrator would correspond to the differential equation Eq (16) while the transfer function of a real system is Eq (17). An integrator may be made by inverting the characteristic of a differentiating circuit as in Eqs (18) and (19). Unfortunately the output from such an arrangement also includes the excitation itself. Starting from the 'idealized' differentiator for a.c. as in Eq (22) a similar process yields a system free from this defect. The characteristic of Eq (18) and its 'idealization' can be realized with active RC circuits containing feedback. A resonant amplifier can operate as an integrator if the input and output carriers can be maintained in phase. Such an amplifier is described by Eq (28). For an applied unit function the response is Eq (33), the envelope increasing with a definite time constant like an ordinary delay circuit. If the input is a sinusoid (multiplying the carrier) the response is Eq (37) which manifests

Card 2/3

82916

S/144/60/000/006/001/004

E041/E121

Alternating Current Integrating Circuits

a similar tendency as before. Fig 1 shows one form of circuit using a conventional parallel-T RC filter in a feedback path. If the condition $1 - \beta k_y = 0$ is observed in the closed-loop characteristic of Eq (40) the circuit behaves as an integrator. Fig 2 is a similar circuit with the RC filter rearranged. The effective response is that of the idealized integrator. The circuit which has been tried out experimentally is that of Fig 4 using the simple 'zero-phase-shift' coupling $R_1 C_1 R_2 C_2$. Fig 5 shows a typical response where a 50 mV signal grows linearly to 44 V in 0.2 sec. The error is about 2.5%. A disadvantage of this type of circuit is the limited integration time. There are 5 figures and 4 Soviet references.

ASSOCIATION: Leningradskiy voyenno-mekhanicheskiy institut
(Leningrad Military-Mechanics Institute)

SUBMITTED: February 10, 1960

Card 3/3

BESSONOV, A.A.; GLOBIN, N.M.

Electric measurement of the backlashes of kinematic lines. Izv.vys.
ucheb.zav.; prib. 4 no.2:35-42 '61. (MIRA 14:5)

1. Leningradskiy ordena Krasnogo Znameni mekhanicheskoy institut.
Rekomendovana Leningradskim mekhanicheskim institutom.
(Electronic instruments)

S/119/62/000/007/005/006


1043/1245

AUTHOR: Bessonov, A. A.

TITLE: An electronic rotation controller

PERIODICAL: Priborostroyeniye, no. 7, 1962, 30

TEXT: Two rotation controllers are described. The first operates at 127 volts and 50 cps, consumes 2 watts and weighs 1.2 kg; the second operates at 24-27 volts d c, consumes 4 watts and weighs 0.6 kg. The rotation is transferred from the rotating body to the controller by a belt driving a disc with 8 holes around its circumference. The disc interrupts a light beam impinging upon a photocell. The generated alternating current keeps a relay open. Any interruption of the controlled rotation stops the disc and interrupts the alternating photocurrent. The relay thereupon closes giving a signal for further processing. There are 2 figures.



Card 1/1

S/146/62/005/001/002/011
D201/D304

AUTHOR: Bessonov, A.A.

TITLE: An electronic instrument for detecting and counting thread defects

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye, v. 5, no. 1, 1962, 9-15

TEXT: This is a description of the operation of an instrument based on transformation of a light beam -- in which the analyzed thread is being moved -- into electric signals which control an electromechanical counter. The position of the thread in front of the diaphragm of the photo-sensitive element is rigidly fixed by means of four revolving rollers having directing grooves. The rollers secure the required tension of the thread and the grooves are tapered in such a way that the two together prevent any possible rotation of the thread, so that the counter cannot be wrongly operated by the thread ellipticity due to twisting. The illumination of the photo-element depends on the average diameter of the thread section

Card 1/2

S/146/62/005/001/002/011
D201/D304

An electronic instrument for ...

in front of the corresponding slot of the diaphragm; the length of this section is determined by the slot width which is adjusted according to the minimum dimensions of thread defects. The pulses of voltage due to irregularities in the thread have poor rising times and an amplitude discriminating amplifier is used to amplify the pulses; after amplification and shaping, the pulses trigger a blocking oscillator which in turn operates a standard MЭC-54 (MES-54) counter. The device can register all thread defects exceeding a set level between 0.02 to 2 mm, the error in the dimensions and number of defect measurements does not exceed 2-3 per cent. There are 5 figures and 2 Soviet-bloc references.

ASSOCIATION: Leningradskiy ordena krasnogo znameni mekhanicheskii institut (Leningrad Order of the Red Banner Mechanical Institute)

SUBMITTED: June 3, 1961

Card 2/2

S/146/62/005/002/002/004
D201/D307

AUTHOR: Bessonov, A.A.

TITLE: A universal electronic level meter

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priboros-
troeniye, v. 5, no. 2, 1962, 12 - 17

TEXT: The author gives a short analysis and description of a level meter which is actually a capacitative proximity switch. The sensing element is a high-gain triode amplifier, with LC circuits in the grid and anode and an additional anode-to-grid capacitance added to increase the feedback. The amplifier oscillates at HF. A capacitive probe at the end of a screened cable acts as a detuning element when brought near to any liquid, granulated, or powdered substance. The oscillations are fed into an amplifier with a diode shunting the grid leak resistor and thus biasing it heavily in the positive direction. The amplifier is thus normally conducting and the relay in its anode is conducting heavily. Any capacitative detuning stops oscillations,

Card 1/2

S/146/62/005/002/002/004
D201/D307

A universal electronic level meter

the amplifier is cut off by self-bias and the relay operates. Experiments have shown that the level meter may be used for any -- including corrosive -- fluids, powder and granulated substances. It operates satisfactorily at temperatures from - 10 to + 50°C and for the following level changes: 1) for fluids - less than ± 0.5 mm; 2) for powders - less than ± 1.5 mm; 3) for granulates - less than ± 5 mm. There are 4 figures and 2 references. ✓

ASSOCIATION: Leningradskiy ordena Krasnogo Znameni mekhanicheskii institut (Leningrad 'Order of the Red Banner' Mechanical Institute)

SUBMITTED: April 13, 1961

Card 2/2

BESSONOV, A.A.

Electronic step-by-step optimizing control system. Izv.vys.ucheb.zav.;
priib. 6 no.1:78-87 '63. (MIRA 16:2)

1. Leningradskiy ordena Krasnogo Znameni mekhanicheskoy institut.
(Electronic control)

S/0271/63/000/012/A025/A025

ACCESSION NR: AR4014941

SOURCE: RZh. Avt., tel. i vychisl. tekhnika, Abs. 12A159

AUTHOR: Bessonov, A. A.

TITLE: Computation of automatic control system reliability

CITED SOURCE: Sb. tr. Leningr. mekhan. in-ta, no. 22, 1961, 42-65

TOPIC TAGS: automatic control system reliability, reliability theory

TRANSLATION: The author studied the possibility of predicting the reliability of automatic control systems on the basis of the probabilistic evaluation of the correspondence of their functional properties to the requirements imposed on them. Two approaches to the problem are considered. The first is based on the determination of the multi-dimensional probability of the functional correspondence to each of the system indices. The second is based on the evaluation of correspondence to a single generalized functional which in the case of automatic control systems is identified with the concept of the transfer function. A method of computing the reliability of automatic control systems is suggested. It is based on the probability of exceeding the limits of tolerance of the operator functional of the

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ACCESSION NR: AR4014941

system. Recommendations on the practical use of the proposed method are included and illustrated, four illustrations. Bibliography with nine titles. V.G.

DATE ACQ: 09Jan64

SUB CODE: GE

ENCL: 00

Card 2/2

ACCESSION NR: AR4014630

S/0196/63/000/012/K001/K001

SOURCE: RZh. Elektrotehnika i energetika, Abs. 12K2

AUTHOR: Bessonov, A. A.

TITLE: Calculation of the reliability of automatic-control systems

CITED SOURCE: Sb. tr. Leningr. mekhan. in-ta, no. 22, 1961, 42-65

TOPIC TAGS: reliability calculation, automatic-control system

ABSTRACT: A very important problem of automatic control theory is the elaboration of quantitative criteria of the reliability of the systems, the methods for engineering calculation of it and experimental verification. The paper examines the possibilities of predicting the reliability of automatic control systems (ACS) based on a probability estimate of the correspondence between their functional properties and the demands made on them, makes a comparative evaluation of the approaches to a solution of this problem, proposes a method of calculating the reliability of systems and gives recommendations for its practical application. The method permits analysis of a system and its separate links, avoiding unwieldy and time-consuming computations based on multidimensional distributions

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ACCESSION NR: AR4014630

of random variables. It is sufficiently universal, simple and usable for engineer calculations of ACS reliability. Bibliography of 9 titles. D.Svecharnik

SUB CODE: IE

DATE ACQ: 24Jan64

ENCL: 00

Card 2/2

ACCESSION NR: AR4035555

S/0271/64/000/003/A028/A028

SOURCE: Ref. zh. Avtomat., telemekh. i vychisl. tekhn. Sv. t., Abs. 3A179

AUTHOR: Bessonov, A. A.

TITLE: Accuracy of a noncorrelation method for calculating the probability of faultless operation of automatic-control systems

CITED SOURCE: Sb. tr. Leningr. mekhan. in-ta, no. 29, 1963, 19-35

TOPIC TAGS: automatic control, automatic control reliability, automatic control theory, faultless operation probability

TRANSLATION: A correlation method of predicting the reliability of an automatic control system is considered; the method is based on the determination of multi-variate probability of realization of specified system characteristics. The results obtained by this method are compared with the results of calculation of the faultless-operation probability based on evaluation of correspondence between system characteristics and a specified generalized functional. The faultless-operation-probability-vs.-time curve can be obtained if the time functions of parameter tolerances for all system elements are known. Here, the correlation

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ACCESSION NR: AR4035555

between X_i and static ε_i ; parameters of the elements should satisfy these conditions: (1) The correlation function $X = f(\varepsilon)$ coincides with the averaged correlation function $X = f(\varepsilon)$ when the parameter ε varies in time; (2) the values X obey the normal law of distribution with any ε ; (3) the average values of X vary linearly with ε when $\pm \Delta \varepsilon$ is small; (4) the standard deviation of the σ_X - parameter from the direct regression is a constant. Then, the distribution characteristics of X are given by:

$$\Delta \bar{X} = \rho_{X,\varepsilon} \Delta \bar{\varepsilon}; \sigma_X = \sqrt{\rho_{X,\varepsilon}^2 \sigma_\varepsilon^2 + \sigma_{X,\varepsilon}^2}.$$

where σ_X and σ_ε are the standards of distributions X and ε ; $\sigma_{X,\varepsilon}$ is the standard deviation of X from the direct regression of X on ε ; $\rho_{X,\varepsilon}$ is the coefficient of regression of X on ε ; $\Delta \bar{X}$ and $\Delta \bar{\varepsilon}$ are the variations of the average values of X and ε . An example of calculations for a 6N1P tube is given. A faultless-operation probability is calculated for a typical automatic-control-system amplifier with 6N1P tubes, with a carrier-frequency gain of 2×10^6 , and its tolerance $\pm 30\%$. A comparison of the above result with the result of calculation by the method of generalized functional shows that the accuracy of the latter practically equals to that of the correlation method; the functional method also obviates the cumbersome calculations inherent to the correlation method;

Card 2/3

ACCESSION NR: AR4035555

the functional method also permits determining the reliability criteria when exhaustive information about the distribution characteristics of the plant is unavailable.

DATE ACQ: 17Apr64

SUB CODE: DP, IE

ENCL: 00

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ACCESSION NR: AR4039365

S/0272/64/000/003/0073/0073

SOURCE: Ref. Zh. Metrol. i izmerit. tekhn. Otd. vyp., Abs. 3.32.483.

AUTHOR: Bessonov, A. A.; Globin, N. M.

TITLE: Electronic pressure gauge

CITED SOURCE: Sb. tr. Leningr. mekhan. in-ta, no. 33, 1963, 87-90

TOPIC TAGS: pressure, measurement, electronic method

TRANSLATION: The described instrument consists of a tensiometric bridge and an amplifier-converter. The device performs reliably on a wide range of values and velocities connected with pressure. In order to increase the accuracy of measurements the gauge can be easily set to work on three ranges of pressure. As the measuring element, incorporated in the bridge network, is a filament of tensiometric wire, which carries the electric signal, proportional to the measured pressure at every instant of time. The tensiometric elements are constructed from 0.05 mm constantan wire, each having the resistance of 200 ohms. The tensiometric

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ACCESSION NR: AR4039365

system is connected to an electronic amplifier-converter, comprising a generator which supplies sinusoidal output signal, an amplifier of the signal from the measuring element, a cathode follower, inserted between the amplifier and output terminals for attaching a recording unit, and a blocking generator with delay and contactless relay to a thyatron TG3-0.1/1.3. A circuit diagram for the amplifier-converter is included. The error of the instrument does not exceed 2% of the maximum measurable pressure. 2 figures.

DATE ACQ: 22Apr64

SUB CODE: EC

ENCL: 00

Card 2/2

SAPOZHNIKOV, Rostislav Alekseyevich; BESSONOV, Aleksandr
Andreyevich; SHOLONITSKIY, Adrian Grigor'yevich;
TEMNIKOV, F.Ye., prof., retsenzent; TIMOFEYEV, V.A.,
prof., retsenzent; SVECHINSKIY, V.B., retsenzent;
IVANOV, A.Z., retsenzent; KHRUSTALEVA, N.I., red.

[Reliability of automatic control systems] Nadezhnost'
avtomaticheskikh upravliaiushchikh sistem. Moskva,
Vysshaya shkola, 1964. 263 p. (MIRA 17:12)

ACCESSION NR: AP4037464

S/0146/64/007/002/0058/0064

AUTHOR: Bessonov, A. A.; Sivakov, V. A.

Received

NOV 6 1964

TITLE: Automatic failure indicator for discrete systems

SOURCE: IVUZ. Priborostroyeniye, v. 7, no. 2, 1964, 58-64

Information Division

TOPIC TAGS: automatic control, automatic control reliability, automatic control failure, automatic control failure indicator

ABSTRACT: The further development of the authors' failure indicator (Sb. trudov "Avtomaticheskoye upravleniye," vyp. 4, no. 33, LMI, 1963) is reported. The same principle as before, borrowed from G. V. Novotny (Electronica, 1962, no. 28), is used, but the "reference scheme" is replaced by a single trigger whose "weight" changes automatically, depending on the "weight" of the trigger being checked. The new indicator consists of essentially three parts: a reference trigger, a comparison device, and a recording device. The indicator can successfully operate at 20—30 kc or lower frequency. A second version of the indicator is also briefly described. Orig. art. has: 4 figures.
Card 1/2

ACCESSION NR: AP4037464

ASSOCIATION: Leningradskiy mekhanicheskii institut (Leningrad Mechanical Institute)

SUBMITTED: 17Mar63

ATD PRESS: 3079

ENCL: 00

SUB CODE: DP, IE

NO REF SOV: 004

OTHER: 000

Card 2/2

L 41654-65

ACCESSION NR: AR4040018

S/0271/64/00/004/AC02/AC02

SOURCE: Ref. zh. Avtomat., telemekh. i vychisl. takhn. Sv. t., Abs. 4A13

AUTHOR: Bessonov, A. A.; Sivakov, V. A.

TITLE: Automatic indicator of faulty elements in discrete systems

CITED SOURCE: Sb. tr. Leningr. mekh. in-ta, no. 33, 1963, 53-59

TOPIC TAGS: fault finder, discrete device, malfunction

TRANSLATION: The indicator in question is intended for automatic detection of malfunctions in various transistorized trigger circuits. The indicator comprises three parts: a reference circuit, a comparison device, and a recording device. The reference circuit must be similar to that being tested (counter, register, etc.) but more stable. The reference circuit is based on a P402-transistorized trigger. The maximum clock frequency of the reference circuit is 150 kc. The clock frequency during the checking operation should not exceed 20--30 kc. Both the test and the reference circuits are started by the same clock generator. The initial state of both circuits is the same and is set by the clearing signal. From the instant of starting the circuit to the instant of stopping the clock generator,

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ACCESSION NR: AR4040018

the operation of the test circuit with no malfunction of its elements, will not differ from the operation of the reference circuit. The comparison device is actually a coincidence circuit. It receives simultaneously pulses from the reference and the test triggers. Upon a malfunction in the test circuit, the comparison device sends a pulse to the malfunction-counting circuit. A principal electric circuit diagram is presented with the values of parameters indicated. The indicator has been tested under laboratory conditions. It has operated reliably with the supply-voltage variation within $\pm 20\%$ and ambient temperature variation $-40 + 50^\circ\text{C}$. Five illustrations.

SUB CODE: EC

ENCL: 00

cc
Card 2/2

BESSONOV, A.A.; SIVAKOV, V.A.

Device for automatic indication of failures to operate of discrete systems. Izv.vys.ucheb.zav.; prib. 7 no.2:58-64 '64.
(MIRA 18:4)

1. Leningradskiy ordena Krasnogo Znameni mekhanicheskiy institut.

L 61901-65 EWT(d)/EWT(1)/EMP(v)/EEC(b)-2/EMP(x)/EMP(h)/EMP(1)/EWA(h) Pm-h/
 Po-h/Pq-h/Pf-h/Pg-h/Pe-h/Pk-h/Pl-h IJP(c) GS/BC
 AM5009844 BOOK EXPLOITATION UR/

Sapozhnikov, Rostislav, Alekseyevich; Bessonov, Aleksandr Andreyevich; Sholomitskiy,
 Adrian Grigor'yevich

Reliability of automatic control systems (Nadezhnost' avtomaticheskikh upravlyayu-
 shchikh sistem), Moscow, Izd-vo "Vysshaya shkola", 64. 0263 p. illus., biblio.,
 index. 15,000 copies printed.

TOPIC TAGS: automatic control system, reliability theory, reliability engineering

PURPOSE AND COVERAGE: The book discusses the theory of reliability and its appli-
 cation to automatic control systems. The material may be of assistance in the
 design, manufacture, and operation of various systems of automatic control. The
 book is intended for readers familiar with principles of the theory of prob-
 ability interested in problems of reliability in automation.

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I 61901-65

AM5009844

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Ch. VI. Computation of automatic control system reliability -- 132
Ch. VII. Securing the reliability in design, manufacture, and operation of automatic control systems -- 164
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SUB CODE: IE, MA

SUBMITTED: 02Apr64

NO REF SOV: 081

OTHER: 040

dm
Card 2/2

L 60453-65

ACCESSION NR: AT5017389

UR/0000/64/000/000/0161/0167

AUTHOR: Bessonov, A.A. (Leningrad)

TITLE: A device for highly accurate measurements of small angular and linear displacements

SOURCE: Konferentsiya po avtomaticheskomu kontrolyu, i metodam elektricheskikh izmereniy. 3d, Novosibirsk, 1961. Avtomaticheskii kontrol' i metody elektricheskikh izmereniy; trudy konferentsii, t. 2: Tsifrovyye izmeritel'nyye pribory. Elektricheskiye izmereniya neelektricheskikh velichin. Ustroystva avtomaticheskogo kontrolya i upravleniya v promyshlennosti (Automatic control and electrical measuring techniques; transactions of the conference, v. 2: Digital measuring instruments. Electrical measurements of nonelectrical quantities. Devices for automatic control and regulation in industry). Novosibirsk, Redizdat Sib. otd. AN SSSR, 1964, 161-167

TOPIC TAGS: angular shift measurement, linear displacement measurement, kinematic play

ABSTRACT: The measurement of the play of fine kinematic circuits illustrates the problem of the displacement angle of two axes. For such types of measurement, the author proposes the method of two rotating transformers (RT) located at the beginning

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L 60453-65

ACCESSION NR: AT5017389

and at the end of the kinematic circuit under consideration (see Fig. 1 of the Enclosure). The article presents a comprehensive theoretical treatment of the problem and the electrical circuitry for the measurement of kinematic plays. It concludes with a brief description of an automatic device for accurate measurement of small displacements (e.g., the displacements of membranes of barometric tanks; see Fig. 2 of the Enclosure). Orig. art. has: 18 formulas and 6 figures.

ASSOCIATION: none

SUBMITTED: 11Nov64

ENCL: 02

SUB CODE: EE, IE

NO REF SOV: 003

OTHER: 000

Card 2/4

L 60453-65

ACCESSION NR: AT5017389

ENCLOSURE: 01

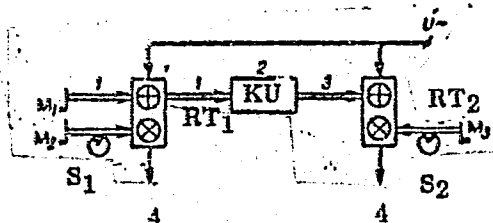


Fig. 1. Block diagram of a device for the measurement of plays of kinematic units by means of two rotating transformers:
 1 - drive shaft; 2 - kinematic unit under study; 3 - driven shaft; 4 - to the oscillograph;
 M₁, M₂, M₃ - flywheels; RT₁, RT₂ - rotating transformers; S₁, S₂ - transformer scales.

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L 60453-65

ACCESSION NR: AT5017389

ENCLOSURE: 02

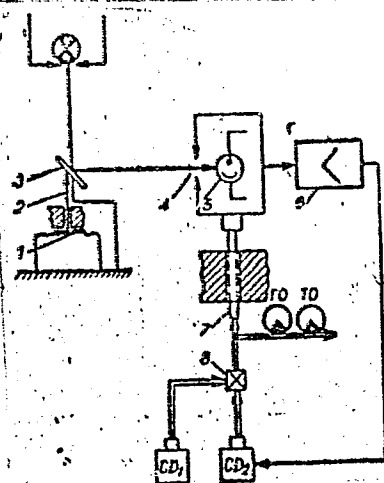


Fig. 2.

Fig. 2. Block diagram of a device for small displacement measurements:
1 - Object whose displacement is traced by the mobile feeler 2 connected to the mirror system 3; the slit diaphragm 4 follows the displacements of the narrow beam of light [other symbols are not explained in the article].

Card 4/4

BESSONOV, A.A.

Introducing a device for testing the stands for the simulation
of conveyors. Biul. tekhn.-ekon. inform. Gos. nauch.-issl.
inst. nauch. i tekhn. inform. 18 no. 12:63-64 D '65
(MIRA 19:1)

L 4907-66 EWT(d)/EWP(1) IJP(c) BB/GG

ACC NR: AP5026299

UR/0144/65/000/008/0854/0862
621.382.3+621.3.011.1

AUTHOR: Bessonov, A. A. ⁴⁴ (Candidate of technical sciences, Docent)

TITLE: Transistorized integrating and differentiating devices ^{166, 44}

SOURCE: IVUZ. Elektromekhanika, no. 8, 1965, 854-862

TOPIC TAGS: differentiating circuit, integrated electronic device, transistorized circuit

ABSTRACT: Electronic integrating and differentiating DC devices are usually based on passive RC circuits. However, in several cases it is advantageous to use active integrating and differentiating circuits containing amplifiers with positive coupling. After discussing the theoretical foundation of both approaches and stressing that transistorized integrating and differentiating devices (operating under emitter follower conditions) are particularly simple and reliable, the present author reports on experimental investigations of differentiator and integrator circuits shown in Fig. 1 of the Enclosure. In the case of the differentiator, the error for a linearly varying input signal did not exceed $\delta U_{\text{output}} = 2.0\%$. In the case of integrator with square wave functions at the input, the errors were again within 2.0% for integration intervals of 6 min. An even better accuracy could be obtained in both cases if the circuits were made of better quality components. Orig. art. has: 46 formulas and 8 figures.

ASSOCIATION: Leningradskiy mekhanicheskiy institut (Leningrad Mechanical Institute) ⁴⁴

Card 1/3

L 4907-66

ACC NR: AP5026299

SUBMITTED: 26Nov64

ENCL: 01

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NO REF SOV: 003

OTHER: 000

Card

2/3

L 4907-66

ACC NR: AP5026299

ENCLOSURE: 01

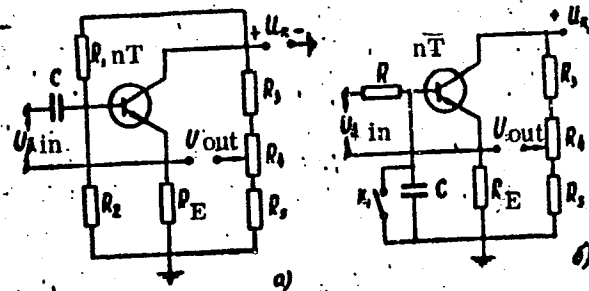


Figure 1. Experimentally tested differentiator (a) and integrator (b). $U_k = 15\text{V}$; $R_1 = 47\text{ k}\Omega$; $R_2 = 30\text{ k}\Omega$; $R = 3\text{ M}\Omega$; $C = 1\text{ }\mu\text{F}$; $R_E = 5,6\text{ k}\Omega$; $R_3 = 30\text{ k}\Omega$; $R_4 = 5\text{ k}\Omega$; $R_5 = 10\text{ k}\Omega$; $nT = 502\text{ A}$.

Card 3/3

L 11120-66 EWT(1)/EEC(k)-2/EWA(h) SOURCE CODE: UR/0146/65/008/006/0173/0170
ACC NR: AP6002188 55 55 49
AUTHOR: Bessonov, A. A.; Sivakov, V. A. 55 55 55

ORG: Leningrad Order of the Red Banner Institute of Mechanics (Leningradskiy
ordena Krasnogo znameni mekhanicheskii institut)

TITLE: Simple failure indicator

SOURCE: IVUZ. Priborostroyeniye, v. 8, no. 6, 1965, 173-176

TOPIC TAGS: test instrumentation, electronic test equipment, circuit failure,
computer technology, computer circuit

ABSTRACT: An instrument for testing digital systems with clock rates below 25—30 kc is reported. The figure shows how this device may be used to test performance of flip-flop no. 2 in a string of complementary flip-flops. The output pulse of flip-flop 1 triggers the generation of a 2-μsec negative pulse by a blocking oscillator. The pulse is delayed 3—4 μsec and applied to a second blocking oscillator. The two outputs of flip-flop 2 pass to an OR gate with an inverted output; and from there an inverted signal of 10 μsec is passed to an AND gate. The signal from the second blocking oscillator reaches the AND gate 5 μsec after the inverted signal. The AND gate output is again inverted and applied to a two-stage binary counter with indicator lamps. If flip-flop 2 is malfunctioning

UDC: 621.317.18

L 11120-88
ACC NR: AP6002188

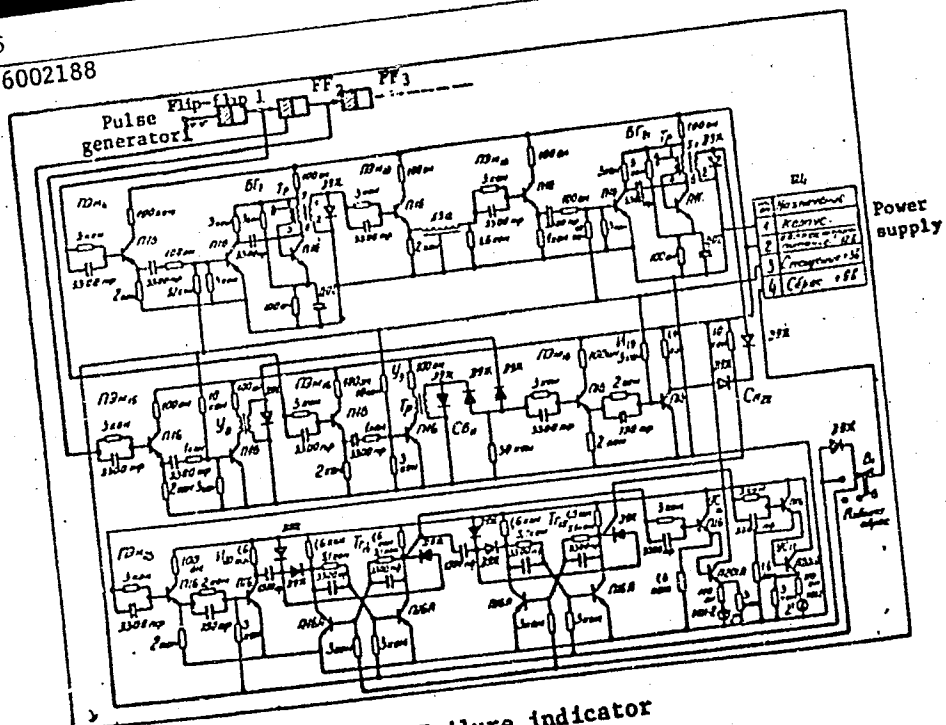


Fig. 1. Failure indicator

L 11120-66

ACC NR: AP6002188

the indicator lamps will light. The circuit operates at temperatures of 0—50C
and bias voltage variations of $\pm 10\%$. Orig. art. has: 3 figures. [BD]

SUB CODE: 09/ SUBM DATE: 12Dec64/ ORIG REF: 003/ ATD PRESS: 476

BC 3/3

L 25516-66 EWT(d)/EWP(1) IJP(c) GG/BB

ACC NR: AR6008998

SOURCE CODE: UR/0271/65/000/010/B011/B011

AUTHOR: Bessonov, A. A.; Mal'ts, E. L.

TITLE: Two-channel multiplying device with silicon-diode squarers

SOURCE: Ref. zh. Avtomat. telemekh. i vychisl. tekhn., Abs. 10B96

REF SOURCE: Sb. tr. Lenigr. mekhan. in-ta, no. 41, 1964, 69-79

TOPIC TAGS: silicon diode, computer component, arithmetic unit

ABSTRACT: The two-channel multiplying device contains a divider (DIV) for the input voltage, which is proportional to one of the factors, the principal and complementary multiplying elements (PME and CME), and the summing element (SE). In the DIV one of the cofactors is divided into two parts -- principal and complementary. The main part of the voltage is applied to the input of the PME, where it is multiplied by the second factor. In the CME the complementary part of the voltage is multiplied by a factor k as well as by the second factor, after which the product is reduced by the factor k . The CME circuit contains two inverting amplifiers, a summing amplifier, and two squarers constructed in accordance with a circuit with virtually bounded diodes. The SE is an ordinary summing amplifier with two inputs, to which the products from the main and complementary multiplying elements are fed, and whose output produces the sought product. The described multiplying unit was tested by a mathematical simulation method using the MNB-1 computer. 4 illustrations. [Translation of abstract]

SUB CODE: 09

Cord 1/1

UDC: 681.142.642.3/4

L 40271-66 EWT(d)/EWT(1)/REC(k)-2/EWP(v)/EWP(k)/EWP(h)/EWP(1) BC

ACC NR: AR6014870

SOURCE CODE: UR/0372/65/000/011/G015/G016

AUTHORS: Bessonov, A. A.; Sivakov, V. A.

TITLE: A self-adjusting failure indicator operating by the midpoint method

SOURCE: Ref. zh. Kibernetika, Abs. 11G104

REF SOURCE: Sb. tr. Lenigr. mekhan. in-ta, no. 41, 1964, 43-53

TOPIC TAGS: optimal automatic control, circuit failure, trigger circuit, data read-out

ABSTRACT: An automatic self-adjusting failure indicator¹¹ is described. For a system to be checked with a certain number of elements and a known a priori probability of failures for a given generalized cost of checking, the indicator possesses optimal organization of the search operations by the midpoint method. This is accomplished when a failure is detected. The indicator is designed for indication of nonintermittent failures and for reduction of the physical or generalized trigger elements of discrete systems. The operation of the indicator is examined as applied to a generalized trigger circuit consisting of five triggers. A functional circuit of the indicator and a description of its operation are given. The circuit consists of a synchronizer, a device for information readout, a device for signal comparison and command generation, and a device for error control and elimination. Schematic diagrams of the synchronizer and the other devices are given. The indicator is

Cerd 1/2

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ACC NR: AR6014870

highly effective in seeking elements that have failed. It operates reliably in the temperature range of -10 to +50C and at a repetition rate of information pulses to 20 khz. 7 illustrations. Bibliography of 4 citations. L. Sh. [Translation of abstract]

SUB CODE: 13, 09

Card 2/2 MLP

SOURCE CODE: UR/02/1755/03070091

ACC NR: AR6035301
AUTHOR: Bessonov, A. A.; Sivakov, V. A.

TITLE: Devices for automatic failure signalling when spare equipment is turned on
SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika, Abs. 9A265
REF SOURCE: Sb. tr. Leningr. mekhan. in-ta, no. 51, 1965, 91-112

TOPIC TAGS: alarm system equipment, emergency spare equipment, failure indicator, digital computer system, computer element component, logic element, noise analyzer

ABSTRACT: The authors consider different types of failure indicators and compare them. A failure indicator which is sensitive to noise signals not only cases of breakdown but also nonintermittent failures due to noise. At the same time, it has no standard elements, which is an advantage. A failure indicator that is sensitive to noise can be constructed in accordance with minimum equipment using a breakdown indicator monitors connected in circuit in which the inputs are decoupled. A synchronous indicator monitors simultaneously the operating ability of all the elements (blocks, units) of the system at the instant when information codes pass through them. A synchronous failure indicator can be used to monitor the correct operation of entire units of modern digital computers. For example, when an error in the comparison register (not necessarily in specified element of this register) is signalled by the failure indicator, the operation is repeated. If the error was due to a breakdown, then the comparison register is performed the program after the repetition of the operation. Re-

UDC: 654.9

Transla-

KHONIN, V.A.; SUCHKOV, M.A.; BESSONOV, A.A.; Prinimala uchastiye
TAVILDAROVA, T.F., doktor sel'khoz. nauk, prof.;
NAZARENKO, L.I., red.; NAGIBIN, P.A., tekhn. red.

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naia kniga krupnogo rogatogo skota krasnoi stepnoi porody.
Alma-Ata, Kazsel'khozgiz. Vol.14 [Karaganda and North Kazakh-
stan Provinces in the Kazakh S.S.R.] Karagandinskaia i Severo-
Kazakhstanskaia oblasti Kazakhskoi SSR. 1962. 410 p.
(MIRA 17:2)

1. Kazakh S.S.R. Ministerstvo sel'skogo khozyaystva.